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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/518,576

Applicant(s)

ASAZU ET AL.

Examiner

Muktesh G. Gupta

Art Unit

2444

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. **Claims 1, 13, 17, 21, 25-30, 33-34 and 37** are amended.

Claims 1-43 are presented for examination have been examined on merits and are pending in this application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/30/2008 has been entered.

Response to Amendment

3. Acknowledgment is made for Applicants Amendments for claims filed on 12/30/2008.

Applicant's amendment necessitated updating search and new ground(s) of rejection presented in this office action.

Applicant's arguments are deemed moot in view of the following new grounds of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., related information receiving means that receives related information on contents from one or more user devices, the related information

including an identification of the contents, user remarks to the contents, and a reference time position of the user remarks relating to the contents; related information storing means that stores the received related information; reference information receiving means that receives reference information from the one or more user devices, the reference information including a keyword specifying contents to be referred to by the user remarks to the contents and specifying a data time reference position in the contents; reference information storing means that stores the received reference information; and information delivering means that searches the related information storing means for matching related information that matches at least one of the keywords or the time reference position of the reference information from the reference information receiving means, and transmits the matching related information for displaying on a display at a specific user device from among said one or more user devices, and that delivers at least one of the matching related information or the stored reference information to the one or more user devices,) to the claims which significantly affected the scope thereof.

Applicant's arguments with respect to amended **Claims 1-43**, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-43** rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 20030093790 to Logan, James D. et al., (hereinafter "Logan").

As to Claims 1, 13, 17 and 21, Logan discloses content related information provision apparatus, method, program and bulletin board system that provides related information on contents including reference data arranged in time series, the apparatus comprising (as stated in par. 0043-0046, par. 0103, The methods and apparatus contemplated by the present invention facilitate the selective storage, organization and reproduction (playback) of broadcast programming through the use of metadata that identifies and describes segments of that broadcast programming. FIG. 1 illustrates in schematic form the manner in which information is processed. At the remote location, broadcast programming from a source 100 is received at 101 and may be processed immediately or saved in a storage unit 103 for later processing. At 105, the incoming broadcast signals are parsed or subdivided into logically separate segments, which need not be contiguous and which may be overlapping or nested. As illustrated at 111, metadata is then created which describes each of the identified programming segments. The metadata describing each segment may take the form of a separate data entity, or

may be stored or transmitted with the content of programming segment, which it describes. Unless the metadata is associated with a particular segment by being stored or transmitted with that segment, it includes a pointer or some other mechanism for specifying the segment or segments it describes. In addition, the metadata typically includes additional descriptive information about the associated segment(s). The metadata created at 111 may be immediately processed or transmitted to the user after it is created, or may be stored for later processing or transmission in a storage unit illustrated at 113. The user's ability to create and share metadata that describes, classifies or relates to selected broadcast programming segments thus enables users to create a community surrounding those segments in which a rich variety of information exchanges and transactions can occur. Users can, in effect, use the subject matter of broadcast programming as public bulletin board upon which to post comments about the program, ratings and descriptive data which can be used as a basis for indexing and retrieving program content, and for linking in related information from other sources, or for conducting a marketplace by posting offers to sell and to buy goods or services relating to or suggested by program content):

related information receiving means that receives related information on contents from one or more user devices, the related information including an identification of the contents, user remarks to the contents, and a reference time position of the user remarks relating to the contents (as stated in par. 0051, par. 0048, par. 0053, Metadata created at the remote location and transmitted via the communications facility 130 may be stored at 133 at the user location. The metadata stored at 133 may be edited at the

user location as indicated at 135, and metadata from the user location may be returned via the communications facility 130 to the remote location for shared use by others. Note that metadata created by the user, or preference data supplied by the user or derived from an analysis of the user's use of the system, or from the viewer's demographic characteristics, may be combined with or used instead of metadata and preference data created at the remote location. The broadcast programming content received at the user location at 141 may be immediately processed or stored for later processing and viewing. The incoming broadcast programming may be concurrently viewed or otherwise processed while it is being recorded in a circular buffer for possible future use. A reserved portion of the storage unit seen at 143 may implement the circular buffer. This allows the user to utilize VCR-type controls to pause and selectively replay or process previously broadcast programming at different forward and reverse playback rates. With the pause capability, the system is constantly recording the last 5 minutes or so of a live radio broadcast, or the last 30 minutes or so of a live television broadcast. When the user hears or views a song or program that he or she likes, the user presses a "Catch" button, and the program will set aside the all of a predetermined part of the stored programming in the circular buffer, as well as a further predetermined part of the incoming broadcast that continues the saved portion, and retains both in temporary storage at 143. Later metadata may then be applied to that segment identifying the beginning and end of the program or song being played at the time the catch button was activated);

related information storing means that stores the received related information; reference information receiving means that receives reference information from the one or more user devices, the reference information including a keyword specifying contents to be referred to by the user remarks to the contents and specifying a data time reference position in the contents; reference information storing means that stores the received reference information (as stated in par. 0096, par. 0054, par. 0057-0059, a viewer may transmit a request to the remote facility for additional information about a particular program (which may include multiple segments), or the preferences of the user as stored in 117 may be expressly stated by the user or derived from the user's viewing history. These requests and/or preferences stored at 117 may then be used at 115 to select desired metadata (including references to metadata stored elsewhere) in the store 113 for transmission to the requesting user. Unless received in already parsed form from the remote location, the incoming broadcasts are parsed at 145 into segments that correspond to the segments created at the remote location at 105. As noted earlier, the available metadata may be used to subdivide the incoming broadcast signals into segments. For example, the metadata may identify incoming segments by source and by start and end times. Alternatively, the metadata may include "fingerprint" or "signature" signal pattern that can be compared with incoming broadcast signals to identify particular segments, and may further include timing information, which specifies the beginning and ending of each segment relative to the location of the unique signature. As illustrated in FIG. 1 at 180 and 135, the user may create descriptive metadata and may edit metadata previously received or created in a variety of ways to

personalize the storage, reorganization and playback of available broadcast programming. It is also important to note that the parsing, selection and modification processes may be performed at different times using, in each case, the most recently stored version of the programming content and the metadata that is available at that time. For example, metadata that is used to parse incoming segments at 145 may be made available from the parser 105 at the remote facility at an earlier time than descriptive metadata arrives from the remote creation process 111. The presence of the storage unit 143 allows received broadcasting signals to be held until parsing metadata arrives which will subdivide the received programming into logical units that can then be still later selected and modified with the aid of descriptive metadata that arrives only after it is created by the remote editing process. Note also that the metadata which arrives first to subdivide the programming stream into logical segments, as well as available metadata which describes those segments, facilitates the task at the user location of generating still further supplemental metadata which describes, rates, annotates or recommends programming content for other users);

and information delivering means that searches the related information storing means for matching related information that matches at least one of the keyword or the time reference position of the reference information from the reference information receiving means, and transmits the matching related information for displaying on a display at a specific user device from among said one or more user devices, and that delivers at least one of the stored-matching related information or the stored reference information to the one or more user devices, wherein the content referred to in the

matching related information was already distributed or will be distributed to the one or more user devices (as stated in par. 0050, par. 0078-0080, par. 0276, par. 0271, The communication methods or apparatus used to transport metadata and/or content to the user as illustrated at 130 may take many different forms, including: the Internet, a dialup telephone connection through the public switched telephone network (PSTN), a wireless transmission system, cable, private line facilities, or data storage media transported from the content publisher and/or the metadata creator to the user. The communications may take place over a combination of such facilities and, as noted earlier, the content and metadata may be transmitted in one or both directions together or separately over the same or different facilities. If the metadata is not positionally associated with the segments it describes by being imbedded with, or transmitted at the same time as, the content data, some of the metadata performs the function of identifying the associated program content. Stored segments may be identified by a file name, a URL, or by some other unique access key (such as the primary key value in a relational database storage system). When segments can be identified and accessed when needed using such an access key, simply including that key value with the descriptive metadata suffices. However, when metadata created at the remote location must be associated with program content received at the user location, a different mechanism is needed. As one approach, the program segment may be specified by the combination of an identifier which specifies a broadcast program source (e.g. a particular broadcasting station or cable channel) together with the start and ending times at which the particular programming segment was broadcast. These "time stamp" values are sent with the

metadata to the user location and matched against time stamp information associated with the broadcast programming when received at the user station. The central server, or the local system, may generate playlists based on a combination of shared and personal data. The shared data may identify program segments (e.g. songs or informational segments), which go together and further indicate a preferred playback sequence for associated segments. The personal data may be based on the user data (locally available or uploaded to the server and stored at 117), which may identify which program segments are available to the user and which segments have been previously played, and when. This shared and personal data is then processed to produce a recommended personalized playlist, which is made available to automate the user's playback sessions. Metadata labels may be displayed in a list, or as subtitles, to assist the user in rapidly locating desired segments for playback. A mosaic of images, each selected from a single segment, may be displayed as a visual cue to assist the viewer in locating a desired segment from a sequence of segments. When the metadata includes descriptive text, keyword searches can be performed to identify segments described with matching words).

As to Claims 2, 14, 18 and 22, Logan discloses content related information provision apparatus, method, program and bulletin board system according to claims 1, 13, 17 and 21, further comprising:

means that specifies an installation region of a terminal apparatus of the one or more user devices to be a delivery destination according to the information delivering

means; and information changing means that changes contents of related information and/or reference information, which should be delivered, according to the installation region (as stated in par. 0130, par. 0048, Metadata can be developed to characterize individual program segments by processing log file data representing choices made by users in selecting and/or abandoning programs, and from program ratings expressly provided by users. When aggregated by retrieving and combining such data from many users, and when further correlated with demographic data about the same users, rating information can be provided which tends to indicate what other viewers having similar backgrounds and similar past preferences preferred among the currently available program materials. Note that metadata created by the user, or preference data supplied by the user or derived from an analysis of the user's use of the system, or from the viewer's demographic characteristics, may be combined with or used instead of metadata and preference data created at the remote location).

As to Claims 3, 15, 19 and 23, Logan discloses content related information provision apparatus, method, program and bulletin board system according to claims 1, 13, 17 and 21, wherein the contents refer to a broadcast program, and the reference information includes information specifying a broadcasting station, which broadcasts or has broadcasted a program, and information specifying a date and time when a reference part in a program is broadcasted or has been broadcasted (as stated in par. 0080, par. 0136, par. 0097-0101, When metadata created at the remote location must be associated with program content received at the user location, a different mechanism

is needed. As one approach, the program segment may be specified by the combination of an identifier which specifies a broadcast program source (e.g. a particular broadcasting station or cable channel) together with the start and ending times at which the particular programming segment was broadcast. These "time stamp" values are sent with the metadata to the user location and matched against time stamp information associated with the broadcast programming when received at the user station. For example, a TV program segment may be identified by data indicating the segment was broadcast by WGN beginning at 11:23:42 to 11:32:16 GMT on Oct. 12, 2000. The metadata may be transmitted with the programming content, or may be transmitted at a later time, or over a different communication pathway. In many program transmission systems, some of the available bandwidth is allocated to metadata, as typified by program guide channels or time slots provided by the vertical blanking interval (VBI) in a television signal. These existing pathways may be used to transfer the metadata contemplated by the present invention which contemplates, in many implementations, the transfer of metadata after the programming material has been broadcast but before the programming material is viewed on a delayed or time-shifted basis after having been recorded earlier. The metadata which is created by created by and shared among users one or a combination of the following forms: (1) Qualitative (rankings, reviews, etc.); (2) Descriptive (summary, topics, etc.); (3) Segment identifications (start time, elapsed time, ending time, source, detectable characteristic, ancillary codes); and (4) Cross-references or pointers to metadata stored at addressable resource locations, including metadata created and hosted by other users).

As to Claims 4-5, 16, 20 and 24, Logan discloses content related information provision apparatus, method, program and bulletin board system according to claims 3, 14, 18 and 23, wherein the reference information specifies a broadcasting station, which broadcasts or has broadcasted a program, using a channel number (as stated in par. 0015, par. 0361-0364, A remote editing station, which may be at the broadcast facility or at a remote location, classifies, describes or otherwise identifies individual segments of broadcast programming and sends metadata (sometimes referred to as "markup data") identifying and describing those segments to a remote client receiver. For example, the markup data may identify individual segments by specifying the source and the time of the original broadcast, or by specifying some other unique characteristic of the broadcast signal. The program segments may be TV, radio, or Internet programs, or portions of programs, including individual songs, advertisements, or scenes. An index listing of segments is manifested as a collection of metadata which defines an ordered set of program segments that may be replayed in the order listed in the absence of some intervention by the viewer. Hence, these segment indexes are also termed "Playlists." In general, as noted earlier, segments have any number of attributes associated with them. These attributes could be the basis for creating playlists, that is, a listing of segments that represents a subset of all the segments or a subset of some existing subset of segments. A "show index" is a playlist of the segments that makeup a broadcast program or "show" with the segments being listed in the order originally broadcast. A user-created playlist may identify segments that may or may not be in a

different order than the original broadcast. In addition, the segments in different playlists may have different start and stop times and not be based on any particular segmentation scheme for breaking the show into segments. Viewers will have the ability to select one or more segments from one or more show indices and create a playlist for later playback. The selection of the segments could be automatic (for instance if a search was performed requesting a list of segments on a specific topic) or manual whereby a viewer would peruse the indices and their attributes for one or more shows and select manually segments to be added to a playlist. The manual creation process could be assisted by automated techniques. For instance, a football game could be sorted by type of play, and then a user could manually select all the pass catches of interest to create an All-Star playlist. Each playlist could at any time be reordered by the viewer, again on a manual basis, or by sorting on specific attributes (such as date, channel, subject matter, etc.)).

As to Claims 6 and 27, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means includes identification information of a site handling information resources related to contents in the reference information and delivers the identification information (as stated in par. 0229, par. 0102, Although the present invention contemplates that metadata which is created at one location and made available to another location and further that this metadata relates to broadcast programming content that is independently available at both locations. Where

appropriate, when content available at the location where the metadata is created is not already available at a destination location, it may be transmitted with the metadata. For example, locally created content (such as home video recordings) may be stored at the user location, described by metadata, and both the content and the metadata may be distributed. In addition, program content providers may authorize the redistribution of their content under appropriate conditions (for example, under the condition that the advertising is not deleted), in which case both the content and the metadata which was obtained from another source, or metadata created locally by a viewer, may be made available to other users. In one preferred mode, metadata stored at 133 and published by a user through a central server location or by a direct peer-to-peer connection may include the URL or identifier of the program content which may be retrieved by another user who selects in by first displaying its descriptive metadata. Metadata that includes the URL of a World Wide Web resource provides a robust mechanism for associating the content of particular segments of broadcast programming to both additional information and related interactive transactions. For example, metadata may be associated with programming that permits viewers to learn more about or to purchase products or services related to the programming content. As described above, individual users may also create addressable resources, such as Web pages, and associate links to those resources with viewed programming segments. For example, a fan club for a particular actor might create a Web site devoted to that actor, and then share metadata containing the URL to that Web site with other viewers).

As to Claims 7 and 28, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means includes information for correcting deviation of a clock in a terminal apparatus to be a delivery destination in the reference information and delivers the information (as stated in par. 0081, par. 0084, par. 0094, At times, predetermined time shifts occur when programs are distributed over cable facilities and the like. When that occurs, predetermined time offsets can be added to or subtracted from the values specified in the metadata, either before or after the metadata is transmitted to the user location. The magnitude of these standard offsets may be determined by detecting the time when predetermined signal patterns are received at the user location, comparing that time with the time when that signal pattern was broadcast as measured at the remote station to generate the offset value to be applied to all segments experiencing the same time shift as the predetermined signal pattern. When the metadata is created, a "signal pattern," or "fingerprint" extracted or derived from the content is used to identify a known time position in the "parent" copy of the version from which the metadata is created. This fingerprint or pattern may also uniquely identify the parent copy, distinguishing it from other content. This fingerprint exists at a measurable time offset from an "index point" in the parent copy used to associate metadata with the content. For instance, if the metadata were marking the beginning of an advertising segment, the fingerprint should be within and near the start of that advertising segment. Alternatively, the fingerprint to be detected to establish the time mark may be within only the first of a sequence of segments, with the first and remaining segments having start

times and end times expressed by offsets from the single time mark. As an alternative, the metadata provided by users may include segment identification information. For example, a user may identify a segment of programming by marking its beginning and end, and then create metadata, which describes, rates or classifies that segment. Programming at the user location creates identification metadata for the segment using any of the techniques discussed earlier; for example, by extracting and transmitting a unique fingerprint from the identified programming and transmitting this fingerprint together with start and end offsets, or by identifying the programming source together with the time stamp information specifying the times at which the beginning and end of the segment were originally broadcast).

As to Claims 8 and 29, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means includes a characteristic amount of contents at a reference position in the contents in the reference information and delivers the characteristic amount (as stated in par. 0082, par. 0097-0101, The technique of detecting predetermined signal patterns may be used to establish not only the timing but also the identity of a segment of a sequence of segments. For example, one or more a unique "signatures" may be extracted or derived from a sequence of programming segments from a particular source. The metadata for individual segments may then include values that specify a time offset from the signature marker and, in that way, uniquely identify the segment. Thus, the metadata which is created by created by and shared among

users one or a combination of the following forms: Segment identifications (start time, elapsed time, ending time, source, detectable characteristic, ancillary codes); and Cross-references or pointers to metadata stored at addressable resource locations, including metadata created and hosted by other users).

As to Claims 9 and 30, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means delivers plural pieces of reference information collectively (as stated in par. 0048, par. 0361, metadata created by the user, or preference data supplied by the user or derived from an analysis of the user's use of the system, or from the viewer's demographic characteristics, may be combined with or used instead of metadata and preference data created at the remote location. An index listing of segments is manifested as a collection of metadata which defines an ordered set of program segments that may be replayed in the order listed in the absence of some intervention by the viewer. Hence, these segment indexes are also termed "Playlists").

As to Claims 10 and 33, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means delivers the related information and/or the reference information in accordance with an HTTP (Hyper Text Transfer Protocol) (as stated in par. 0104, par. 0102, Programming may be described, classified and rated using metadata formats. Standard rating systems have been widely promulgated using the

World Wide Web Consortium (W3C) Platform for Internet Content Selection (PICSJ). The PICS specification enables labels (metadata) to be associated with content and was originally designed to help parents and teachers control what children access on the Internet, but also facilitates other uses for labels, including code signing and privacy. PICS labels, and other metadata, may be advantageously expressed using the W3C's Resource Description Framework (RDF) which integrates a variety of web-based metadata activities including sitemaps, content ratings, stream channel definitions, search engine data collection (web crawling), digital library collections, and distributed authoring, using XML as an interchange syntax. Metadata that includes the URL of a World Wide Web resource provides a robust mechanism for associating the content of particular segments of broadcast programming to both additional information and related interactive transactions. For example, metadata may be associated with programming that permits viewers to learn more about or to purchase products or services related to the programming content. As described above, individual users may also create addressable resources, such as Web pages, and associate links to those resources with viewed programming segments. For example, a fan club for a particular actor might create a Web site devoted to that actor, and then share metadata containing the URL to that Web site with other viewers).

As to Claims 11-12 and 34-35, Logan discloses content related information provision apparatus and bulletin board system according to claims 1 and 21, wherein the information delivering means delivers the related information and/or the reference

information in accordance with an SMTP (Simple Mail Transfer Protocol) (as stated in par. 0223-0224, Similarly, one user could bookmark an individual program or a segment of a program, associate a recommendation or comment with the bookmarked content, and make the program or program segment identification data and the comment or recommendation available to a special interest group or to a specific individual. In order to distribute metadata to designated users, it may be structured to include addressee data which specifies individuals or groups, so that bookmarking metadata of this kind can be affirmatively pushed to targeted users, or pulled by users who request metadata contributed for their specific attention, or for the attention of a group to which they belong. Using the facilities of an interactive digital cable television networks, a viewer could be watching a show live and want to recommend it to another friend. Using a remote control, the user could select one or more friends from a preset displayed list and then transmit to those designated persons a "watch this" message that might be displayed as close-captioned text on the friend's screen. Properly programmed, the receiver could provide the option to open a window on the TV screen for a PIP ("picture-in-picture") display of the recommended show. Alternatively, using the Internet, a message could be sent via an instant bookmarking messaging connection or by email to a designated person or persons).

As to Claims 25-26 and 31-32, Logan discloses bulletin board system according to claim 21, wherein the information processing unit is further configured to transmit a name of a bulletin board, in which a corresponding remark is written, with the name

included in the reference information (as stated in par. 0091-0092, par. 0097-0103, par. 0105, par. 0107, par. 0128, metadata describing the segments identified during the parsing process at 105 may be created at 111 in a variety of ways and stored at 113 for potential distribution to users. In addition, metadata created by users may be received via the communications facility 130 to supplement or replace the metadata created at 111. Metadata created by users may be shared directly between users. When shareable metadata exists at a user location, it may be "registered" by supplying its resource address (such as an Internet URL) to the remote location which then relays the URL to other users who directly access the descriptive metadata from the other user's metadata storage 133 in a peer-to-peer transfer. In this form, the remote facility shown in FIG. 1 operates as a registry or directory that permits users to share descriptive metadata about broadcast programming with one another on a community basis. Thus, the metadata which is created by created by and shared among users one or a combination of the following forms: 1. Qualitative (rankings, reviews, etc.); 2. Descriptive (summary, topics, etc.); 3. Segment identifications (start time, elapsed time, ending time, source, detectable characteristic, ancillary codes); and 4. Cross-references or pointers to metadata stored at addressable resource locations, including metadata created and hosted by other users. The user's ability to create and share metadata that describes, classifies or relates to selected broadcast programming segments thus enables users to create a community surrounding those segments in which a rich variety of information exchanges and transactions can occur. Users can, in effect, use the subject matter of broadcast programming as public bulletin board upon which to

post comments about the program, ratings and descriptive data which can be used as a basis for indexing and retrieving program content, and for linking in related information from other sources, or for conducting a marketplace by posting offers to sell and to buy goods or services relating to or suggested by program content. To optimize the benefit of the community markup, program guide data may be made available to potential users to identify what stations to record. As users can't go back after a broadcast and record it, this method would insure the maximum number of recorded copies will be available both for markup and playback with any CM effort. Improved markups may be downloaded and used to improve previously recorded songs or other content stored at 143, 147 or 153 in an automatic mode. Thus, even if several days elapse before the improved markup is available, the existing recording library would be automatically upgraded. This upgrading of the library would be performed transparently to the user. Metadata created by individual users may be simply stored locally at 133 as an Internet accessible resource. Web crawling "spider" programs executing on remote computers may then retrieve and index this metadata and then act as "search engine" directories that may be publicly accessed to locate metadata of interest).

As to Claims 36-39, Logan discloses bulletin board system according to claim 23, further comprising:

a specification unit that, concerning a program series to be an object of an argument in a bulletin board specifies a broadcast schedule for the next broadcast of the series (as stated in par. 0264, One of the most important mechanisms for assisting

a user in locating desirable programming is the use of metadata to enhance the content and operation of the electronic program guide. Metadata indicating a user's preferences which is derived from both the preferences directly expressed by the viewer and by preferences inferred from the user's viewing and metadata creation activities may be used to selectively display and highlight particular programs in the program guide listing. Icons or highlighting may be used to identify listed programs and segments for which additional metadata is available for display to the user upon request. Metadata which ranks programs may be displayed using rating icons, color coding, or highlighting to guide the viewer toward higher rated programs);

and a unit that transmits the broadcast schedule to a terminal apparatus of a request source of the one or more user devices (as stated in par. 0265, Note that program guides may display listing of previously broadcast materials which are available in local storage, broadcast programming which will be available currently and in the future for viewing and recording, and "content on demand" programming which exists as retrievable resources on program servers and on storage maintained by other users and shared on a peer-to-peer basis with other users. Metadata describing all such programming content may be located using an electronic program guide format which permits the extensible display of additional metadata and the selection of particular program content for viewing and recording).

As to Claim 40, Logan discloses bulletin board system according to claim 21, further comprising:

a designation unit configured to designate retrieval conditions for a remark; and a retrieving unit configured to retrieve a remark across plural bulletin boards on the basis of the designated retrieval conditions (as stated in par. 0222, par. 0260-0263, when metadata is placed in an addressable location, other users may retrieve it on a peer-to-peer basis. In this arrangement, a user might be simply supplied with a list of URLs at which other users having similar backgrounds, or viewers who were known and trusted, could post reviewable metadata. In this way, a user could affirmatively recommend certain programming and affirmatively discourage other users from viewing other programming. the metadata, which is available to the user, may include electronic program guide (EPG) data for displaying a listing or matrix of available programming, including both live programming and recorded programming. The user may select items from this EPG display to record or play incoming broadcasts (or both), may play previously recorded programming, or may identify future programming to be recorded. During playback of recorded material, and during the recording of new material, a progress bar that shows the location within a program that is currently being viewed can be displayed at the user's requests, typically occupying only a portion of the screen while the video content occupies the remainder. Segment markers can be noted on the bar and associated with icons to indicate the presence of descriptive metadata. Using a mouse or remote control to "click on" or select a segment displayed on the content bar would then alternatively cause the metadata associated with that segment to be displayed, or would resume playback of content at the beginning of the selected segment. Segments as shown on the progress bar could be color coded based on a

program rating to enable the user to quickly view highly rated segments, or to skip lower rated segments. In addition, metadata about segment quality or other attributes may be displayed on the screen using suggestive icons (smiling faces, frowning faces, etc.) while a segment is being shown helping viewers to more quickly decide whether to hit the "next segment" button or a channel surfing button on a remote control unit. Icons indicating the availability of additional descriptive metadata may also be displayed on the progress bar, or associated with programs listed in a displayed program guide. Because metadata may exist in many forms from many sources, the user may be given the opportunity to enter display preferences that control the manner in which metadata is displayed. Thus, metadata from especially trusted sources may be preempt regular programming and be provided with use of the entire screens, while other metadata may be displayed as closed captioned text or as icons, or without any display unless the view specifically requests the presentation of metadata for a particular program segment).

As to Claim 41, Logan discloses bulletin board system according to claim 40, wherein the bulletin board system uses a keyword included in a remark or designated separately at the time of writing the remark as retrieval conditions (as stated in par. 0129, par. 0271, metadata created by individual users may be simply stored locally at 133 as an Internet accessible resource. Web crawling "spider" programs executing on remote computers may then retrieve and index this metadata and then act as "search engine" directories that may be publicly accessed to locate metadata of interest. For

example, a search for "Stardust" might locate metadata describing an audio recording of the song by that name, biographic programming about the composer or performing artists, and the like. Thus, the descriptive metadata created by professional editors and/or users can form the basis for finding and enjoying content that would otherwise be difficult to index because of its non-textual character. Metadata labels may be displayed in a list, or as subtitles, to assist the user in rapidly locating desired segments for playback. A mosaic of images, each selected from a single segment, may be displayed as a visual cue to assist the viewer in locating a desired segment from a sequence of segments. When the metadata includes descriptive text, keyword searches can be performed to identify segments described with matching words).

As to Claim 42, Logan discloses bulletin board system according to claim 40, wherein the bulletin board system uses a name or an ID of a user who has written the remark as retrieval conditions (as stated in par. 0223, par. 0242, Similarly, one user could bookmark an individual program or a segment of a program, associate a recommendation or comment with the bookmarked content, and make the program or program segment identification data and the comment or recommendation available to a special interest group or to a specific individual. In order to distribute metadata to designated users, it may be structured to include addressee data which specifies individuals or groups, so that bookmarking metadata of this kind can be affirmatively pushed to targeted users, or pulled by users who request metadata contributed for their specific attention, or for the attention of a group to which they belong. When advertising

that is provided as part of the content programming, or inserted into the content as noted above, the user may press an "information" button (normally used to trigger a display describing the program currently being played) to obtain additional information about the advertised product. In this way, the user identifies products and services about which he or she has a particular interest, and the advertiser is able to provide information (including the URL of an Internet resource containing detailed information), which would otherwise be unavailable to the user).

As to Claim 43, Logan discloses bulletin board system according to claim 40, wherein the bulletin board system uses a date and time when the remark is written as retrieval conditions (as stated in par. 0282, The user interface presented to a user for program library and playlist management may be designed using the interface for an email client as a metaphor. Just as email is "pushed" at the user and then sorted, read, and filed, a playlist manager presents a list of program segments that are available in the user's personal library. Programs, which have previously been played, may be identified by a distinctive type font or color. Once listened to, the style in which the program segment is listed is changed. Users may sort the program listing list by artist, program name, date and time of capture, source (e.g. radio station call letters), recording quality, user rating, and other parameters. Multiple sort fields will be allowed; for example, the listing could be sorted by source first, and then by time of capture. Any program on the list may be selected (by clicking or by entering its list number). When selected, a given program listing may be immediately played in its entirety, a "sweet

spot snippet" only may be played as a preview, or the selected segment may be added to a playlist, or moved to a user-created and user-named "folder," or to a system - created folder).

Remarks

5. The following pertaining arts are discovered and not used in this office action. Office reserves the right to use these arts in later actions.
- a. Holtz, Alex et al. (US 20020053078 A1) Method, system and computer program product for producing and distributing enhanced media downstreams
 - b. Gaos, Maria (US 20030046689 A1) Method and apparatus for delivering a virtual reality environment
 - c. Logan; James D. et al. (US 6088455 A) Methods and apparatus for selectively reproducing segments of broadcast programming
 - d. Logan; James D. et al. (US 6931451 B1) Systems and methods for modifying broadcast programming
 - e. Logan; James D. et al. (US 7055166 B1) Apparatus and methods for broadcast monitoring

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muktesh G. Gupta whose telephone number is 571-270-

5011. The examiner can normally be reached on Monday-Friday, 8:00 a.m. -5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MG

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444